Pool Heater and Heat Pump Sizing

**POOL HEATER**

**Pro’s**
- Lower initial investment
- Works in any temperature
- Heats Pool quickly (with high enough BTU)

**Cons**
- Higher operating costs (uses more gas)
- More Moving Parts That Can Potentially Break

**HEAT PUMP**

**Pro’s**
- Low Operating Cost
- Environmentally Friendly
- No Need to Run Gas Lines

**Cons**
- Higher Initial Cost
- Only Works Above 50 Degrees Fahrenheit

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**Pool Size (ft) | Est. Gallons* | Pool Heater BTU (to raise temp 1 degree/hour) | Pool Heater BTU (to raise temp 1 degree/hour)**
---|---|---|---
12 x 20 | 10,000 | 110k BTU | 50k BTU
15 x 25 | 15,000 | 165k BTU | 90k BTU
16 x 32 | 20,000 | 220k BTU | 120k BTU
20 x 32 | 25,000 | 275k BTU | 140k BTU**
20 x 40 | 30,000 | 330k BTU | 140k BTU**

*Gallons are estimated using 3.5ft shallow end and 7ft deep end. You can calculate the exact number of gallons for your pool here.

**Heat pumps only go up to 140k BTU. For pools over 25k gal, a 140k BTU heat pump will raise temp closer to ½ or ¾ degrees per hr.*
Heat pumps offer an alternative heating method for your pool. However, heat pumps will only work when the ambient temperature is above 50 degrees Fahrenheit.

Sizing based on a temperature rise of 1 – 1 ¼ degree per hour. Large pools will heat slower, closer to ½ – ¾ degrees per hour.

Length x Width x Desired Temperature Rise x 12 = Required BTU

Example (10 x 20 ft. pool; desired temp rise of 20 degrees Fahrenheit):

10 x 20 x 20 x 12 = 48k BTU

When you are deciding what size pool heater to purchase, it is important to understand that a larger heater will heat the water faster. A 400k BTU heater will burn gas twice as fast as a 200k BTU heater, but will also heat the pool (roughly) twice as fast.

However, you should also be aware that if you’re heater does not get enough gas, it will not function properly. Check with your gas company to determine the size of your gas meter, and the pressure in your gas lines.

(Gallons + 10%) X 10 = BTU needed to raise temp 1 degree per hour

Example: 30,000 gallon pool

(30,000 + 10%) x 10 = 330k BTU

Whether you choose to use a Pool Heater or Heat Pump, it is strongly advised that you also use a solar cover to prevent heat loss through evaporation. A solar cover will increase the efficiency of a heater or heat pump, and keep your pool water warmer. Click HERE to get one.